Group gears up to save the Tsolum River

Cap for mine site top option to restore water quality

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Juvenile salmon and copper leachate just don't mix well and, after decades of contamination from an abandoned open pit copper mine on Mt. Washington, a new partnership is showing some metal in the bid to save the salmon in the Tsolum.

"There is some very exciting move ment forward in terms of putting this thing to bed," said Tsolum River Restoration Society coordinator Jack Minard. Minard and the restoration society have been hard at work on the issue for years.

The problem stems from copper leachate from the abandoned copper -mine site that gets into the Tsolum .River through various tributaries.

In the 1950s there were reports of runs of as many as 100,000 pink salmon and 7,500 coho in the river and. by the early eighties, those stocks had declined to near zero. The conta minated water was the prime culprit in the decline, but development and log ging are also believed to have played a part.

Local groups have done a lot of work on the river and surrounding wetlands over the last several years to restore the habitat—and they have met with some success.

The Spectacle Lake wetland, a pro ject completed in 2003, now receives the copper tainted water that flows down from the mine site. Natural processes then remove 70 to 75 per cent of the contaminants in the water before it flows into the Tsolum River.

That wetland, along with other restoration projects on the Tsolum, has provided some relief for salmon and trout in the river.

But the relief is only temporary- over time, the wetland will become sat urated and will no longer remove the contaminants.

So a new partnership—the Mount Washington Acid Rock Drainage Remediation Project Committee, with representatives from the community, industry and government—was formed in 2003.

The group have now completed the first phase of the project that will, hopefully, permanently fix the Tsolum.

"Basically phase one was to do a con sultation process with community and experts." said Dianne Ramage, director for salmon recov ery at the Pacific Salmon Foundation. "It was an option selection process to determine which way they should go forward to remediate the acid mine drainage."

That process determined that—at this point—the best option to restore the quality of the water in the Tsolum is to cap the mine site, separate and divert the surface and ground water and temporarily treat the water.

The only questions now are can it be done, and at what cost.

"Phase two is supposed to see if that option is as doable as it appeared in phase one," said Ramage. "Can it be done, how much will it cost and will it meet the water quality guidelines."

Run-off from the old Mt. Washington copper mine poisoned the Tsolum River

If successful. Ramage noted in an e- mail that the work will be of benefit to more than just the salmon in the Tsolum.

"Increasing biodiversity and improv ing watershed function benefits us all," she wrote. "It reduces flood risk, creates recreational opportunities for all, brings economic growth and increases individ ual property values.

"Their work helps the entire commu nity."

The committee consists of landowner TimberWest, the Tsolum River Restoration Society, two provincial min istries—environment and energy, mines and petroleum resources—the Mining Association of B.C., Fisheries and Oceans Canada and the Pacific Salmon Foundation.

The first phase of the project had a budget of $65,000 and the budget for the second phase of the project is $161,000. The bulk of the money for both phases came from the provincial ministries involved in the committee.

Phase two is expected to be complete by February of next year, and the work required to save the Tsolum could begin as early as next summer.

How much that work will cost is still up in the air—but when it's done, the hope is that there will be a lot more fish in the water.

Cost for phase one—Option Selection:	**565,000**
Ministry of Environment:	550,000
Private citizen donation:	57,500
Fisheries and Oceans Canada:	54,000
Mining Association of B.C.	53,500
Cost for phase two—Engineering and Cost Analysis:	**$161,000**
Ministry of Environment:	550,000
Ministry of Energy, Mines and Petroleum Resources:	550,000
Private citizen donation:	517,000
Fisheries and Oceans Canada	515,000
Mining Association of B.C.	55,000
Left over from phase one	**524,000**